

Title V

Model General Permit Template

SERIES 1 METAL CAN SURFACE COATING OPERATIONS

Template # SJV-MC-1-0

metal can line sheet basecoat and overvarnish operations

including curing ovens that are induction heated or fire on
PUC-quality natural gas or propane

located at facilities that apply more than three gallons of coating per day

not a soft-drink or beer-can surface coating line

not a metal coil surface coating line

This template is designed to streamline the Title V permitting process for metal can surface coating operations meeting the above qualifications. Applicants for Title V permits choosing to use this template will only have to complete the enclosed template qualification form and submit it with their Title V application.

San Joaquin Valley Unified Air Pollution Control District

**Final
Title V Model General Permit Template
Series 1 Metal Can Surface Coating Operations**

Template No: SJV-MC-1-0

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FINAL DECISION DATE:

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

TITLE V GENERAL PERMIT TEMPLATE SJV-MC-1-0

ENGINEERING EVALUATION

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Template SJV-MC-1-0

I. Purpose

The purpose of the proposed template is to streamline the Title V permitting process and reduce the time required by the applicant and the District by identifying the federally applicable requirements for certain metal can surface coating operations and establishing permit conditions which will ensure compliance with such requirements. These conditions will be incorporated into the Title V permit of any facility choosing to make use of the template.

II. Template Applicability

The template applies to:

Metal can line sheet basecoat and overvarnish operations, that

May include curing ovens that are induction heated or are fired on natural gas or propane, and

Are part of a facility that applies more than three gallons of coating per day, and

Are not a soft-drink or beer-can surface coating line, and

Are not a metal coil surface coating line as defined in 40 CFR 60 subpart TT or in District Rule 4604 section 3.1 and 3.2.

The applicability of this template is determined by completion of the Template Qualification Form (TQF) attached as Appendix D. The completed and signed TQF must be submitted with the Title V application.

III. Applicable Requirements

Units may be subject to “federally enforceable” requirements as well as requirements that are enforceable by the “District-only.” Federally enforceable requirements will be enforceable by the EPA, the District, and the public through Title V permit conditions identified as federally enforceable. District-only requirements represent local or state regulations for which the EPA has no direct enforcement authority. The final Title V permits issued by the District will contain both federally enforceable and District-only requirements.

District-only requirements are not addressed in this template except for those used in streamlining of multiple requirements (see discussion in section IV). District-only

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requirements used in streamlining of multiple requirements will become federally enforceable. Table 1, Applicable Requirements, does not necessarily include all federally enforceable requirements that apply to metal can surface coating operations qualifying to use this template, and it is the source's responsibility to determine any and all applicable requirements to which the source is subject. Generally, requirements not addressed by this template are those that require a source-specific analysis, or are covered by other templates.

Table 1. Applicable Requirements

| Rule Category | Rule/Regulation | Citation | Description |
|---------------|---|-----------------------------------|--|
| A | County Rule | 404 ¹ | Sulfur Compounds |
| A | County Rule | 406 ² | Sulfur Compounds |
| A | County Rule | 407 ³ | Sulfur Compounds |
| A | SJVUAPCD Reg. II | 2520, 9.1, 9.4.2, 9.5.2, and 13.2 | Periodic Monitoring, Recordkeeping, and Permit Shields |
| A | SJVUAPCD Reg. IV | 4201 ⁴ | Particulate Matter Concentration |
| A | SJVUAPCD Reg. IV | 4604, except 6.3 | Can and Coil Coating Operations |
| B | SJVUAPCD Reg. II | 2201 | New Source Review Rule |
| B | SJVUAPCD Reg. II | 2520 ⁵ | Federally Mandated Operating Permits |
| B | SJVUAPCD Reg. IV | 4101 ⁶ | Visible Emissions |
| C | New Source Performance Stds. Subpart WW | 40CFR§60.490 | Standards of Performance for the Beverage Can Surface Coating Industry |
| C | New Source Performance Stds. Subpart TT | 40CFR§60.460 | Standards of Performance for Metal Coil Surface Coating |
| C | SJVUAPCD Reg. IV | 4661 | Organic Solvents |

¹ Madera - this template only covers compliance for sulfur compounds emitted from fuel combustion within curing ovens. Compliance for coatings, as applied, is site specific and must be addressed in the Title V application outside of this template.

² Fresno - this template only covers compliance for sulfur compounds emitted from fuel combustion within curing ovens. Compliance for coatings, as applied, is site specific and must be addressed in the Title V application outside of this template.

³ Kern, Kings, Merced, San Joaquin, Stanislaus, and Tulare - this template only covers compliance for sulfur compounds emitted from fuel combustion within curing ovens. Compliance for coatings, as applied, is site specific and must be addressed in the Title V application outside of this template.

⁴ This template only covers compliance with District Rule 4201 for particulate matter emitted from fuel combustion within curing ovens. Compliance for particulate emissions from coatings applied is site specific and must be addressed in the Title V application outside of this template.

⁵ Other than category A requirements

⁶ Portions of this rule are addressed in the facility-wide template SJV-UM-0-0.

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Category “A” rules contain requirements that are directly applicable to the qualifying units; compliance with these applicable requirements will be demonstrated in this engineering evaluation and assured by the template permit conditions. In section IV, Compliance, the federally-enforceable requirements from category “A” rules are listed with a discussion of how compliance with these requirements is achieved.

Category “B” rules contain federally enforceable requirements (aside from those listed as category A) that were not addressed in this template. These may not be all of the federally enforceable requirements for this unit. Requirements from these rules must be addressed by the applicant outside of this template within the Title V application Compliance Plan form (TVFORM-004). Category “B” listing is included in this table as an informational item to assist applicants in this effort.

Category “C” rules contain requirements which have been determined not to be applicable to qualifying units. A permit shield is proposed for the category “C” rules. An explanation of the determination of non-applicability of category “C” rules is included section V, Permit Shield.

IV. Compliance

This section contains a discussion of how compliance is assured with each requirement addressed in this template.

District Rule 2520, 9.1, 9.4.2, and 9.5.2

Section 9.1 requires each permit to include emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of permit issuance. This template addresses compliance with District Rule 4201 for curing ovens which are induction heated or fired on PUC natural gas or propane with specified sulfur content limits only. Condition #12 prohibits the use of types of curing ovens which are not addressed in this template. Requirements from 40 CFR 60, subpart WW, for soft drink or beer can operations are not addressed by this template. Condition #17 prohibits operation in any manner which could trigger applicability of subpart WW.

Section 9.4.2 requires that periodic monitoring be performed if none is associated with a given emission limit to assure compliance. County Rules 404 (Madera), 406 (Fresno), and 407 (Kern, Kings, Merced, San Joaquin, Stanislaus, and Tulare) limits sulfur emissions, but do not specify monitoring frequency or method to assure compliance. Compliance for induction heated and PUC regulated natural gas fired curing ovens is assured without testing. Template conditions addressing monitoring frequency and methods have been added which assure compliance for propane fired ovens (see conditions #13 and #14). District Rule 4604 does not specify a monitoring frequency for VOC coating content. Condition #15 requires annual testing for VOC coating content.

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Section 9.5.2 requires that records of all required monitoring shall be maintained for at least five years. Template permit condition #16 requires that all records be maintained for at least five years.

District Rule 4201

District Rule 4201, Section 3.1, limits the emission of dust, fumes, or total suspended particulate matter (PM) to 0.1 grain/dry standard cubic foot of gas. For the purposes of this template, compliance with District Rule 4201 will be addressed only for PM emitted from fuel combustion within the curing ovens.

Particulate matter emissions from coating applications are site specific since they are dependent upon production- and application-rate and solids contents of coatings. Consequently, compliance with District Rule 4201 limits must be addressed in the Title V application outside of this template.

Metal can coating lines that qualify to use this template are restricted to those with curing ovens that are induction heated or are fired on natural gas or propane only. The following analysis demonstrates compliance:

For natural gas,

$$\frac{\left(13.9 \frac{lb \text{ PM}}{10^6 \text{ cf}}\right) \left(7000 \frac{grain}{lb}\right)}{\left(950 \frac{Btu}{scf \text{ ng}}\right) \left(8710 \frac{dscf}{10^6 \text{ Btu}}\right)} = 0.01 \frac{grain}{dscf} \pi 0.1 \frac{grain}{dscf}$$

For propane,

$$\frac{\left(0.6 \frac{lb \text{ PM}}{10^3 \text{ gal}}\right) \left(7000 \frac{grain}{lb}\right)}{\left(0.094 \frac{MMBtu}{gal \text{ propane}}\right) \left(8710 \frac{dscf}{MMBtu}\right)} = 0.005 \frac{grain}{dscf} \pi 0.1 \frac{grain}{dscf}$$

where:

$$13.9 \frac{lb \text{ PM}}{10^6 \text{ cf}} = \text{PM emission factor for natural gas (AP-42, Table 1.4-1)}$$

$$7000 \frac{grain}{lb} = \text{conversion factor (AP-42, Appendix A)}$$

$$950 \frac{Btu}{scf \text{ ng}} = \text{minimum expected (i.e. worst case assumption) heating value of natural gas (AP-42, 1.4.1)}$$

$$8710 \frac{dscf}{MMBtu} = \text{F factor, } F_d, \text{ natural gas and for propane (40CFR60, App. A, Table 19-1)}$$

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$$0.6 \frac{\text{lb PM}}{10^3 \text{ gal}} = \text{PM emission factor for propane (AP-42, Table 1.5-1)}$$

$$0.094 \frac{\text{MMBtu}}{\text{gal propane}} = \text{heating value of propane (AP-42, Appendix A)}$$

The preceding analysis shows the worst case expectation, 0.01 gr/dscf, is well within compliance of the limit. Therefore no testing, recordkeeping or monitoring for PM will be required. Condition #10 assures compliance for units using this template with District Rule 4201.

District Rule 4604 (Formerly District Rule 460.4)

District Rule 4604 (Adopted April 11, 1991, Amended September 19, 1991, Amended December 17, 1992) is a renumbering of the requirements of SIP approved District Rule 460.4. This rule limits the volatile organic compound (VOC) content of the coatings used or applied during the manufacture of cans.

Section 5.0 sets the limits for the content of VOC per liter of coating, excluding water and exempt compounds. The limit varies depending on the process. The operator may achieve the emission limits implied by these content limits by the use of low VOC coatings, see template permit condition #1. Compliance with the emission limits may also be achieved by the use emission control devices, such as catalytic incineration or afterburners, with a minimum of 90 percent overall efficiency. See template permit condition #2 - #7. Note that no facility using this template is allowed to switch from using a 90% control device to using low VOC coatings only or visa versa.

Section 5.4 states that the use of coatings with VOC contents in excess of the limits specified in Section 5.1.1 are allowed provided that the emissions of VOC to the atmosphere is equivalent to the use of the coatings. This "equivalency" is site specific, thus any facility that is using an equivalency may not use this template.

Section 6.0 requires testing and recordkeeping of the processes covered by this template. Information must be maintained concerning coatings and solvents used, along with associated testing. See template permit conditions #3, #5, and #7 - #9 and #15.

Rule 404 (Madera County), Rule 406 (Fresno County), and Rule 407 (Kings, Kern, Merced, Tulare, Stanislaus, and San Joaquin)

These county rules limit the emission of sulfur compounds to 0.2% by volume, calculated as sulfur dioxide (SO₂). For the purposes of this template, compliance with these rules will be addressed only for sulfur emitted from fuel combustion within the curing ovens.

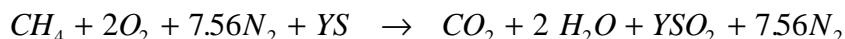
Sulfur emissions resulting from application or curing of coatings are site specific and are not addressed in this template since they are dependent upon production- and

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application-rate and sulfur content of coatings. Consequently, compliance with the county rule limits must be addressed in the Title V application outside of this template.

Metal can coating lines that qualify to use this template may have curing ovens that are induction heated or that fire on natural gas or propane only. No sulfur compounds are emitted from induction heated ovens. Compliance is expected for Public Utilities Commission (PUC) regulated natural gas fired ovens because the fuel sulfur content of this fuel is not to exceed 0.017% by weight (see Appendix B). The following analysis demonstrates that compliance is assured:

Assuming 0% excess air in the exhaust stream corresponds with maximum SO_x emissions concentration, the combustion equation is (neglecting NO_x and SO_x relative to SO_2 in the exhaust):



where:

Y = moles of sulfur in the fuel.

Solving an expression for the fraction of SO_2 in the dry exhaust by volume gives:

$$\frac{Y}{1 + Y + 7.56} = 0.002 \Rightarrow Y = 0.0172$$

where:

Y = mole fraction of S per mole of CH_4 combusted

1 = one mole of CO_2

7.56 = number of moles of N_2

0.002 = 0.2% SO_2 by volume limit according to the cited rules

Use Y to calculate the weight fraction of S in one mole of CH_4 :

$$\frac{(0.0172)(32.06)}{(16.04) + (0.0172)(32.06)} = 0.033 \Rightarrow 3.3\% \text{ S by weight in the fuel.}$$

Where:

32.06 = molecular weight of sulfur (S)

16.04 = molecular weight of methane(CH_4)

0.033 = fraction of S by weight in the fuel

The preceding calculation shows that an exhaust concentration of 0.2% sulfur by volume corresponds to a fuel sulfur content by weight of 3.3%. Because the fuel is the only source of sulfur being addressed, the weight percent of sulfur in the fuel is proportional to the exhaust SO_2 concentration; therefore the volume exhaust concentration associated with combustion of natural gas with 0.017% sulfur is 0.001%. This value is fully three orders of magnitude less than allowable. The use of PUC regulated gas with a maximum sulfur content of 0.017% will assure compliance with this requirement. See permit condition #11.

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A similar analysis for propane combustion shows that shows that an exhaust concentration of 0.2% sulfur by volume corresponds to a fuel sulfur content by weight of 1.5%. Propane fuel contains at a maximum, 15 grains sulfur per 100 scf, maximum worst case⁷. The following equation converts this to a weight percent content:

$$\% S \left(\frac{lb S}{lb C_3H_8} \right) = \left(\frac{15 gr}{100 scf} \right) \left(\frac{1 lb}{7000 gr} \right) \left(\frac{24.45 L}{mol C_3H_8} \right) \left(\frac{44.1 g}{mol C_3H_8} \right) \left(\frac{454 g}{1 lb} \right) \left(\frac{0.035 scf}{L} \right) (100) = 0.019\%$$

Because weight percent of sulfur in the fuel is proportional to the exhaust SO₂ concentration, the volume exhaust concentration associated with combustion of propane with 0.019% sulfur is 0.003%. This value is 500 times less than that allowed by the applicable county rules. The use of propane with a maximum sulfur content of 0.019% will assure compliance with this requirement. The source has the option of maintaining supplier certification records of propane sulfur content or testing the propane fuel for sulfur content to verify this fuel sulfur content is not exceeded. Template permit conditions #11 - 14 assure compliance with the requirements of these rules.

V. Permit Shield

A permit shield legally protects a facility from enforcement of the shielded regulations when a source is in compliance with the terms and conditions of the Title V permit (District Rule 2520, 13.2). Compliance with the terms and conditions of the Title V permit is considered compliance with all applicable requirements upon which those conditions are based.

District Rules 4201 and 4604 (formerly 460.4)

District Rule 4201 has been submitted to the EPA to replace County Rules 402 (Madera) and 404 (Fresno, Kern, Kings, Merced, San Joaquin, Stanislaus, and Tulare). EPA issued a relative stringency finding, dated August 20, 1996, stating that District Rule 4201 is "more stringent" than the county rules referenced above.

By using this template the applicant is requesting a permit shield from District Rules 4201 and 4604 (formerly District Rule 460.4) and County Rules 402, B.1 (Madera), 404 (Kings, Merced, Kern, Tulare, San Joaquin, Stanislaus, and Fresno), 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, Kern, Tulare, San Joaquin, Stanislaus). See template permit conditions #18 and #19.

⁷ Propane contains 15 grains sulfur per 100 scf, maximum (Marks' Standard Handbook for Mechanical Engineers, 8th edition, McGraw-Hill). Also refer to ASTM D1835.

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District Rule 4661

District Rule 4661 replaces Rule 409 in Fresno, Stanislaus, Merced, and San Joaquin counties and Rule 410 in Kern, Tulare, Kings, and Madera counties. Compliance with District Rule 4604 exempts a facility from Rule 4661. A permit shield will be granted for District Rule 4661 because units qualified to use this template are limited to those which are in full compliance with the limits of 4604. A permit shield is granted from this requirement in template permit condition #20.

40CFR60, Subpart TT

A permit shield will be granted for 40 CFR 60 Subpart TT because facilities qualifying to use this template are limited to those which are not metal coil surface coating operations.⁸ A permit shield is granted from this requirement in template permit condition #21.

40CFR60, Subpart WW

A permit shield will also be granted for 40 CFR 60 Subpart WW because facilities qualifying to use this template are limited to those which are not beverage can⁹ surface coating lines. Template condition #14 prohibits the use of any unit subject to this template as a beverage can coating line, pursuant to Subpart WW definition. A permit shield is granted from this requirement in template permit condition #21.

VI. Permit Conditions

Conditions #1 - #7 will not be applicable to all facilities using this template and therefore will only be incorporated into the Title V permit for any unit to which they apply as follows: condition #1 applies to facilities that use low VOC coatings to achieve compliance with VOC emissions limitations; conditions #2 and #3 apply to facilities that use afterburners as VOC destruction device; conditions #4 and #5 apply to facilities that use catalytic incinerators as VOC destruction device; and conditions #6 and #7 apply to facilities with either catalytic incinerators or afterburners as a destruction devices. Conditions #8 - #21 are applicable to all facilities using this template and will be incorporated into the Title V permit for any operation making use of template #SJV-MC-1-0:

Conditions for Operations Using Low VOC Coatings

1. Operator shall comply with the VOC limits by not using or applying any coating with a VOC content in excess of 225 grams per liter as applied excluding water and exempt compounds. [District Rule 4604, 5.1]

⁸ As defined in 40CFR§60.461(a). See Appendix A.

⁹ As defined in 40CFR§60.491(a)(1). See Appendix A.

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Conditions for Operations with Afterburners

2. The afterburner chamber shall be preheated to at least 1300° degrees F prior to combustion of charged material. [District Rule 4604, 5.2.2]
3. The afterburner shall be equipped with a continuous temperature monitoring and recording instrument; or be equipped with a device that either sounds an alarm or shuts down the process if the temperature of the afterburner is not maintained within operating parameters. [District Rule 4604,5.2.2]

Conditions for Operations with Catalytic Incinerators

4. The operating temperature of the catalytic incinerator shall be at least 600° degrees F. [District Rule 4604, 5.2.2]
5. The catalytic incinerator shall be equipped with a continuous temperature monitoring and recording instrument; or be equipped with a device that either sounds an alarm or shuts down the process in the event that the catalyst bed temperature is not maintained within operating parameters. [District Rule 4604, 5.2.2]

Conditions for Operations with Either Catalytic Incinerators or Afterburners

6. Emissions from this operation shall be controlled by an emission control device with a minimum of 90% overall control efficiency. [District Rule 4604, 5.2.2]
7. VOC emissions shall be measured by EPA Method 25, 25a, or 25b, as applicable, and analysis of halogenated exempt compounds shall be analyzed by ARB Method 422 on an annual basis. Capture efficiency shall be determined using methods described in Rule 4604 (as amended December 17, 1992) section 6.2.3. Overall VOC control efficiency shall be determined annually using the source test data and the capture efficiency of the control system. [District Rule 4604, 6.2.2 and 6.2.3, and 2520, 9.4.2]

Conditions for All Metal Can Surface Coatings Operations

8. Operator shall maintain and have available during an inspection, a current list of coatings in use which provides all of the coating data necessary to evaluate compliance including the following information as applicable: 1) specific coatings, catalysts, and reducers used; 2) mix ratio of components used 3) VOC content of each coating, as applied; and 4) VOC content of each solvent used for cleanup and surface preparation. [District Rule 4604, 6.1.1]
9. Operator shall maintain records on a daily basis including the following information: 1) specific coating used and mix ratio of components added to the coating material prior to application; 2) volume of coating applied (gallons); 3) specific solvents used; and 4) volume of each solvent used for cleanup and surface preparation (gallons). [District Rule 4604, 6.1.2]
10. Particulate matter emissions shall not exceed 0.1 gr/dscf in concentration at the point of discharge. [District Rule 4201. 3.1; County Rules 402 (Madera) and 404 (Kings, Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus)]

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11. Sulfur compound emissions shall not exceed 0.2% by volume calculated as SO₂ averaged over 15 minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kern, Kings, Merced, San Joaquin, and Stanislaus)]
12. Curing ovens shall be induction heated or fired on either PUC-regulated natural gas with a sulfur content of 0.017% by weight or less; or propane with a sulfur content 0.019% by weight or less. When firing on propane, compliance with fuel sulfur content limit may be demonstrated by maintaining supplier certification of fuel sulfur content; or by fuel analysis for sulfur content. The source shall maintain on file copies of all natural gas and propane bills and records of supplier certifications. [District Rule 2520, 9.1]
13. When complying with sulfur emission limit by propane fuel analysis, each shipment of propane fuel must be analyzed within the preceding 12 months prior to being fired in the curing oven. [District Rule 2520, 9.4.2]
14. Fuel sulfur content analysis shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2]
15. VOC content of coating(s), as applied, and of solvents used for cleanup and surface preparation shall be determined by EPA Method 24 and analysis of halogenated exempt compounds shall be determined by ARB Method 432 on an annual basis. If the coating/solvent manufacturers provide certification that the previously mentioned methods are used to determine the VOC content, copies of the coating/solvent product data sheets and the certifications may be maintained, used to calculate the VOC content of the coating, as applied, and shall be considered compliance with this condition. [District Rules 2520, 9.4.2 and 4604, 6.2.1]
16. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2]
17. No two-piece beverage can surface coating unit which may be part of this permit unit shall be used in soft drink or beer (including malt liquor) can manufacturing operations. This prohibition does not apply to coating of containers in which fruit or vegetable juices are packaged. [District Rule 2520, 9.1]
18. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: County Rules 402, B.1 (Madera), 404 (Kings, Merced, Kern, Tulare, San Joaquin, Stanislaus, and Fresno), 404 (Madera) for curing oven fuel emissions only, 406 (Fresno) for curing oven fuel emissions only, and 407 (Kern, Kings, Merced, San Joaquin, Stanislaus, and Tulare) for curing oven fuel emissions only. A permit shield is granted from these requirements.[District Rule 2520, 13.2]

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19. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201(as amended December 17,1992) for curing oven emissions only, and 4604 (as amended December 17, 1992) excluding 6.3, formerly District Rule 460.4. A permit shield is granted from these requirements. [District Rule 2520, 13.2]

20. The requirements of SJVUAPCD Rule 4661 (as amended December 17, 1992) , does not apply to this permit unit. A permit shield is granted from these requirements. [District Rule 2520, 13.2]

21. The requirements of 40 CFR 60 Subparts TT and WW do not apply to this permit unit. A permit shield is granted from these requirements. [District Rule 2520, 13.2]

APPENDIX A

DEFINITIONS
FOR
TEMPLATE #SJV-MC-1-0

Template SJV-MC-1-0

NSPS Definitions

beverage can: any two piece steel or aluminum container in which soft drinks or beer, including malt liquor, are packaged. The definition does not include containers in which fruit or vegetable juices are packaged. [40 CFR § 60.491 (a)(1)]

metal coil surface coating operation: the application system used to apply an organic coating to the surface of any continuous metal strip with thickness of 0.15 millimeter (mm) (0.006 in.) or more that is packaged in a roll or coil. [40 CFR § 60.461(a)]

SJVUAPCD Definitions

metal coil surface coating operation: any coating containing organic materials and applied by spray, roller or other means to any flat metal sheet or strip that is rolled or wound in concentric rings. [District Rule 4604, 3.1 and 3.2]

APPENDIX B

PUC GAS SULFUR CONTENT STANDARDS FOR TEMPLATE #SJV-MC-1-0

Template SJV-MC-1-0

GENERAL ORDER 58-B
(Supplemental to General Order 58-A)

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

HEATING VALUE MEASUREMENT STANDARD FOR GASEOUS FUELS

Approved October 17, 1984. Effective November 16, 1984.
(Decision 84-10-052, CII 83-11-01)

Original Order Approved December 28, 1955--Effective January 17, 1956

It is ORDERED that the following rules be adopted effective November 16, 1984 to govern all gas corporations as defined in the Public Utilities Code,* in the determination of heating values of fuel gases. The order also is supplemental to General Order 58-A, which requires utilities to provide and maintain heating value measurement stations and shall not relieve any gas corporation from complying with the provisions of general Order 58-A.

7. Purity of Gas

A. Hydrogen Sulfide

No gas supplied by any gas utility for domestic, commercial or industrial purposes in this state shall contain more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet.

B. Total Sulfur

No gas supplied by any gas utility for domestic, commercial or industrial purposes shall contain more than five (5) grains of total sulfur per one hundred (100) standard cubic feet.

C. Test procedures used to determine the amounts of hydrogen sulfide and total sulfur shall be in accordance with accepted gas industry standards and practices.

D. When hydrogen sulfide, or total sulfur, exceeds the limits set forth in Section 7.a. and Section 7.b., the gas utility shall notify the Commission and commence remedial action immediately. The Commission shall be notified when the level of hydrogen sulfide, or total sulfur, has been reduced to allowable limits.

$$\%S \left(\frac{lb\ S}{lb\ CH_4} \right) = \left(\frac{5\ gr}{100\ scf} \right) \left(\frac{1\ lb}{7000\ gr} \right) \left(\frac{24.45\ L}{mol\ CH_4} \right) \left(\frac{mol\ CH_4}{16\ g} \right) \left(\frac{454\ g}{1\ lb} \right) \left(\frac{0.035\ scf}{L} \right) (100) = 0.017\% \text{ sulfur}$$

APPENDIX C

EPA COMMENTS / DISTRICT RESPONSE
FOR
TEMPLATE # SJV-MC-1-0

Template SJV-MC-1-0

EPA COMMENTS / DISTRICT RESPONSE

The EPA's comments regarding metal can surface coating template SJV-MC-1-0 are encapsulated below followed by the District's response. A copy of the EPA's 6/10/97 letter is available at the District. This template is designed for metal can sheet coating operations at facilities applying greater than three gallons of coating per day.

General Comments Applicable to both MC-1-0 and MC-2-0:

1. EPA COMMENT

The District should clarify in the Template Qualification Form that this template is not applicable to coil coating operations, as defined by NSPS, subpart TT and District Rule 4604. The District should also include both NSPS, subpart TT and District Rule 4604 definitions for metal coil surface coating operations in Appendix A, Definitions.

DISTRICT RESPONSE

Since the definitions of metal coil surface coating operations contained in NSPS, subpart TT and District Rule 4604 are not identical, both definitions will be included in Appendix A, Definitions, which are referenced in the Template Qualification Form. This will clarify template applicability with regards to coil coating operations.

2. EPA COMMENT

The statement that particulate matter emissions from coating applications are not addressed in the template is located in the last paragraph of the Applicable Requirements section of template MC-2-0, whereas the same discussion is located under the subheading District Rule 4201 in the Compliance section of template MC-1-0. The District should consider keeping the discussion in the same section as appropriate to the topic.

DISTRICT RESPONSE

Section III, Applicable Requirements and section IV, Compliance are both appropriate to the topic of compliance with applicable requirements from section 3.1 of District Rule 4201 regarding particulate matter emission. However, for consistency between the templates, footnotes have been added to District Rule 4201 citations in Table I of section III, Applicable Requirements, explaining that requirements are addressed in the template for curing oven fuel emissions but not for coatings as applied. Compliance with District Rule 4201 limits for coating is site specific and must be addressed in the facility Title V application outside of the template.

Template SJV-MC-1-0

The paragraph in section II of template MC-2-0 discussing particulate matter emissions from coating applications has been relocated to section IV, Compliance to be constant with template MC-1-0. This discussion further explains why compliance for coatings could not be addressed in the template. While this might be considered a duplicate discussion of the information contained in the footnotes of section II, the District wishes to make it obvious to the user what the template does and does not address and why.

3. EPA COMMENT

The District should spell out the names of the counties involved when referencing the “seven remaining counties” or the “six remaining counties”, in association with County Rule 404 and 407, respectively, in the Compliance section.

DISTRICT RESPONSE

For clarity and consistency with other templates, the District has referenced each county individually as requested.

4. EPA COMMENT

In Appendix B, the District shows that in accordance with General Order 58-B, the Public Utilities Commission (PUC) fuel sulfur content standard for natural gas is 0.017% by weight or less. However the District interchangeable uses the words “expected” and “typical” to characterize the 0.017% sulfur content in both templates. The District should use consistent language in describing the sulfur content.

DISTRICT RESPONSE

The 0.017% sulfur content is the maximum expected for PUC regulated natural gas. However, typical fuel sulfur content is expected to be much less. The word “typical” has been removed from this section to describe sulfur content since the District is only concerned with the maximum fuel sulfur content in the compliance demonstration.

5. EPA COMMENT

In section IV, Compliance, for District Rule 4201 particulate matter emission requirements, the District incorrectly cites AP-42, Table 1.4-2 as the source of the propane emission factor used. The correct reference is AP-42, Table 1.5-1.

DISTRICT RESPONSE

This citation has been corrected to read, AP-42, Table 1.5-1. In addition, please note some of the values for factors used in this compliance section have been changed slightly to reflect values contained in the newest version of AP-42, as amended October 1996. These changes have made no difference to the outcome of the compliance demonstration.

6. EPA COMMENT

Template SJV-MC-1-0

The expression in the compliance section for the fraction of SO₂ in the dry exhaust by volume used to calculate the mole fraction of sulfur (Y) in the natural gas fuel is incorrect. The equation should be written as: $Y/(1+Y+7.56) = 0.002$.

Template SJV-MC-1-0

DISTRICT RESPONSE

The District agrees that this expression is correct as EPA has written in their comment and has made this change as suggested. However, because the molar fuel sulfur content (Y) is very small, inclusion of the value "Y" in the denominator of this equation has negligible effect on the resulting value of "Y" when solving the equation. This equation modification has no effect on the District compliance demonstration.

7. EPA COMMENT

EPA issued a letter dated 8/20/96 stating District Rule 4201 for particulate matter (PM) emission concentration was more stringent than county Rule 402 (Madera), and 404 (seven remaining counties). As a result, the District requests a permit shield for District Rule 4201 and referenced County Rule 402 and 404. However, after examining the county rules, it is apparent that County Rule 402 (Madera) covers both PM emission concentration and PM emission rates based on process rates. Consequently the District must exclude the portion of county Rule 402 (Madera) dealing with emission rate based on process rate when requesting the permit shield.

Also, the paragraph discussing why a permit shield is requested for rules 4201, 402, and 404 should be removed from the end of the discussion in section IV, Compliance, for District Rule 4201 and inserted in section V, Permit Shield, of template MC-1-0. This practice is followed in template MC-2-0.

DISTRICT RESPONSE

The District agrees EPA was in error when stating District Rule 4201 was more stringent than County Rule 402 (Madera) without qualification. The District has revised section V, Permit Shield, to request a shield for County Rule 402 (Madera) section B.1, which addresses requirements for PM emission concentration.

For clarity and consistency with other templates, the paragraph in template MC-1-0 discussing why a permit shield is requested for rules 4201, 402, and 404 has been removed from the end of the discussion in section IV, Compliance, for District Rule 4201 and inserted in section V, Permit Shield.

8. EPA COMMENT

The Template Qualification Form excludes use of this template for coil and beverage can coating operations. The template conditions grant the entire source permit shields from the requirements of 40 CFR 60, subparts TT for coil coating operations and WW for beverage can coating operations, due to non-applicability. These permit shields must be restricted or conditions must be added to the template to prohibit the source from operating in a manner which would trigger applicability of the referenced NSPS subparts.

DISTRICT RESPONSE

Template SJV-MC-1-0

The District has restricted the permit shield to apply to the permit unit instead of the entire source. It is not possible for any permit unit qualifying to use this template to be converted for use as a coil coating operation without significant modification which would require an Authority to Construct and be subject to NSR. Therefore no condition restricting use as a coil coating operation is necessary. However concerning potential operation as a beverage can coating operation, subject to subpart WW, units qualifying to use this template could conceivably be used in such a manner without modification. Therefore the following prohibitory condition has been added to the template:

- No two-piece beverage can surface coating unit which may be part of this permit unit shall be used in soft drink or beer (including malt liquor) can manufacturing operations. This prohibition does not apply to coating of containers in which fruit or vegetable juices are packaged.[District Rule 2520, 9.1]

9. **EPA COMMENT**

The District must add a condition to restrict qualifying sources to those with curing ovens that are induction heated or are fired on natural gas or propane.

DISTRICT RESPONSE

The District agrees with EPA's request and has added the following condition:

- Curing ovens shall be induction heated or fired on either PUC-regulated natural gas with a sulfur content of 0.017% by weight or less; or propane with a sulfur content 0.019% by weight or less. When firing on propane, compliance with fuel sulfur content limit may be demonstrated by maintaining supplier certification of fuel sulfur content; or by fuel analysis for sulfur content. The source shall maintain on file copies of all natural gas and propane bills and records of supplier certifications. [District Rule 2520, 9.1]

10. **EPA COMMENT**

The District must add a condition to restrict the PM emission limit from the curing ovens to 0.1 grain/dscf, in order to qualify for a permit shield from the requirements from District Rule 4201..

DISTRICT RESPONSE

Worst case expected emissions due to curing oven fuel will be 0.01 gr/dscf or less. Therefore no testing, recordkeeping or monitoring for PM emissions due curing oven fuels only is required for units qualifying to use this template. However the PM emission limit requirement has been added to the template conditions as follows, so that a permit shield may be granted from this requirement:

Template SJV-MC-1-0

- Particulate matter emissions shall not exceed 0.1 gr/dscf in concentration at the point of discharge. [District Rule 4201. 3.1; County Rules 402 (Madera) and 404 (Kings, Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus)]

11. **EPA COMMENT**

The District must add a condition to require curing ovens fire only PUC regulated natural gas (fuel sulfur content 0.017% or less by weight) or propane with a maximum sulfur content specified as used to demonstrate compliance with applicable emission limits for sulfur compounds. The source must also maintain appropriate certification records.

DISTRICT RESPONSE

PUC regulated natural gas is required to have a sulfur content of 0.017% or less. Commercial grade propane is not expected to exceed 0.019% sulfur by weight according to Marks' Standard Handbook for Mechanical Engineers, 8th edition. The following conditions have been added to assure compliance with applicable requirements for sulfur emissions:

- Curing ovens shall be induction heated or fired on either PUC-regulated natural gas with a sulfur content of 0.017% by weight or less; or propane with a sulfur content 0.019% by weight or less. When firing on propane, compliance with fuel sulfur content limit may be demonstrated by maintaining supplier certification of fuel sulfur content; or by fuel analysis for sulfur content. The source shall maintain on file copies of all natural gas and propane bills and records of supplier certifications. [District Rule 2520, 9.1]
- When complying with sulfur emission limit by propane fuel analysis, each shipment of propane fuel must be analyzed within the preceding 12 months prior to being fired in the curing oven. [District Rule 2520, 9.4.2]
- Propane fuel sulfur content analysis shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2]

12. **EPA COMMENT**

The permit shields from the requirements of District Rule 4661 and 40 CFR 60 Subparts TT and WW are too broad. The District must revise these conditions to state that the shield only applies to the emission unit(s).

DISTRICT RESPONSE

The applicability of these permit shields has been restricted to the permit unit qualifying to use the template.

Template SJV-MC-1-0

13. EPA COMMENT

The Template Qualification Form (TQF) must include a criterion to exclude a metal coil surface coating operation subject to District Rule 4604 from qualifying for the template in addition to the current criterion prohibiting a metal coil surface coating operation subject to 40 CFR 60, subpart TT.

DISTRICT RESPONSE

Please see District Response to EPA Comment #1.

14. EPA COMMENT

The order of the 40 CFR 60 citations in the first two questions of the TQFs must be switched to correctly reflect the subject matter of the question.

DISTRICT RESPONSE

The first two TQF questions and their citations to 40 CFR 60 have been changed as follows:

- Is the process a beverage can (see Appendix A) surface coating line? [40 CFR § 60.491 (a)(1)] If "no," continue to next question; otherwise STOP - you cannot use this template.

- Is the process a metal coil surface coating operation as defined in 40 CFR § 60.461(a) and District Rule 4604 section 3.0 (see Appendix A)? If "no," continue to next question; otherwise STOP - you cannot use this template.

15. EPA COMMENT

The District must add a criterion to the TQF prohibiting a source using the alternative emission control plan from qualifying for the template.

DISTRICT RESPONSE

Template MC-1-0 contains the following criterion in the TQF which would not allow a facility using the alternative emission control plan to qualify to use the template.

- Does this process use only coatings compliant with District Rule 4604, section 5.1.1 or is it controlled by a VOC destruction device that is either an afterburner or a catalytic incinerator with at least 90% control efficiency, pursuant to section 5.2.2? [District Rule 4604 section 5.2] If "yes", continue to next question; otherwise STOP - you cannot use this template.

Template MC-2-0 contains the following criterion in the TQF which would not allow a facility using the alternative emission control plan to qualify to use the template.

Template SJV-MC-1-0

- Is the process in full compliance with District Rule 4604 and using only low VOC content coatings, pursuant to section 5.1? [District Rule 4604, 4.2] If "yes," continue to next question; otherwise STOP - you cannot use this template.

In addition, both templates contain conditions insuring that the option of the alternative emission control plan may not be used in lieu of the requirements of section 5.1 and 5.2 of District Rule 4604.

Template Specific Comments:

16. **EPA COMMENT**

To be consistent with the language in the Template Applicability section and in District Rule 4604, the first criterion on the cover sheet should read, "metal can line sheet basecoat (exterior and interior) and overvarnish operations."

DISTRICT RESPONSE

The template title page and section II, Template Applicability are intended to provide the user with a general overview of template application. The Template Qualification Form contains language consistent with cited rules and must be completed to determine actual qualification, pursuant to the statement in section II, Template Applicability. Therefore is not necessary and undesirable for the template title page and Template Applicability sections to be encumbered with specific language from the District Rule. However, the language has been modified for consistency between the two sections, as has been the practice in previous templates.

17. **EPA COMMENT**

To be consistent with the language in district Rule 4604, the first applicability condition should read, "Surface coating... basecoats (exterior and interior)...."

DISTRICT RESPONSE

Please see District Response to EPA Comment #16.

18. **EPA COMMENT**

Calculated particulate emissions for a curing oven firing propane in the compliance demonstration for District Rule 4201 should be corrected to 0.005 grains/dscf.

DISTRICT RESPONSE

This correction has been made.

19. **EPA COMMENT**

The phrase "Formerly Rule 460.4" should accompany any reference to District Rule 4604.

Template SJV-MC-1-0

DISTRICT RESPONSE

District Rule 4604 is a renumbering of the requirements of SIP approved District Rule 460.4. For clarity and consistency with other templates, the phrase “Formerly Rule 460.4” has been added following any reference to District Rule 4604.

Template SJV-MC-1-0

20. **EPA COMMENT**

The first sentence in the last paragraph under subheading District Rule 4604 in the Compliance section should be corrected to read, "District Rule 4604 is formerly SIP-approved District Rule 460.4."

DISTRICT RESPONSE

For clarity and consistency, this sentence has been modified to read, "District Rule 4604 (Adopted April 11, 1991, Amended September 19, 1991, Amended December 17, 1992) is a renumbering of the requirements of SIP approved District Rule 460.4."

21. **EPA COMMENT**

The second sentence in the first paragraph under subheading Rule 404 (Madera County)... in the Compliance section should be amended to read, "Metal can coating lines that qualify to use this template are restricted to those ~~that~~ with curing ovens that fire on natural gas and propane only."

Additionally, the paragraph does not carry a restriction that coatings, as applied, shall not contain sulfur compounds, as was done in template MC-2-0.

DISTRICT RESPONSE

This sentence has been amended to read, "Metal can coating lines that qualify to use this template may have curing ovens that are induction heated or that fire on natural gas or propane only."

Regarding the restriction that coatings shall not contain sulfur compounds, this requirement was incorporated into template MC-2-0 after District Title V metal can sources stated the coatings they applied contained no such compounds. Upon subsequent investigation and discussions with the coating suppliers, it was determined that some of the coatings used by these sources do contain sulfur compounds in the catalyst, which is present in very small amounts. Therefore these templates can not restrict sulfur compounds in the coatings. Compliance with requirements for sulfur emissions from the coatings, as applied must be addressed outside of this template by the source. The following paragraph has been added to the Compliance section of the template to clarify this for the user:

Sulfur emissions resulting from application or curing of coatings are site specific and are not addressed in this template since they are dependent upon production- and application-rate and sulfur content of coatings. Consequently, compliance with the county rule limits must be addressed in the Title V application outside of this template.

Template SJV-MC-1-0

22. EPA COMMENT

The sulfur compounds calculated to be emitted from the combustion of natural gas curing oven fuel with 0.017% sulfur content should be 0.001% instead of 0.28% by volume in the compliance section.

DISTRICT RESPONSE

This correction has been made.

23. EPA COMMENT

Since the fuel sulfur content of natural gas is consistently described as 0.017% by weight throughout the template, the reference to the “sulfur concentration of 5 grains/100 scf” in the second to the last paragraph in the compliance section seems out of place.

Also, the first sentence in the same paragraph should also be revised to reflect the fact that California-regulated propane has a sulfur content of 0.012% by weight, not 0.017% as currently implied in the sentence.

DISTRICT RESPONSE

As demonstrated in Appendix B, 5 grains sulfur/100 scf of natural gas is equal to 0.017% sulfur by weight. However, for clarity within the compliance section, the District has revised this section to consistently reference the PUC regulated sulfur content of natural gas as 0.017% by weight.

The maximum value of 0.012% sulfur content in propane in California is valid for vehicle propane fuel only. The maximum value of commercial grade propane used in this template has been revised to 15 grains sulfur/100 scf, which is equal to 0.019% sulfur by weight. The sentence referenced by EPA has been modified to clarify this maximum sulfur content for commercial propane.

24. EPA COMMENT

In section V, Permit Shield, for District Rule 4604, the first sentence should be revised to read, “Compliance with the requirements... as assured by conditions #1 - 8, #10, #11, and #13.” Also, the correct permit condition granting a permit shield from the requirements of District Rule 4604 is condition #14, not #16.

DISTRICT RESPONSE

To be consistent with other templates, the sentence referencing conditions assuring compliance with District Rule 4604 has been removed from the Permit Shield section since it is discussed in section IV, Compliance. The condition numbers in this template have been changed, since new requirements have been added to address EPA and District concerns. The correct permit condition granting a permit shield from the requirements of District Rule 4604 is now #19 and the template has been modified to reflect this.

Template SJV-MC-1-0

25. EPA COMMENT

EPA recommends the District substitute the following for the two sentences in the middle of the first paragraph of section VI, Permit Conditions: "Conditions #2 and #3 apply to facilities that use afterburners as a VOC destruction device. Conditions #4 and #5 apply to facilities that use catalytic incinerator as a VOC destruction device. Conditions #6-8 apply to operation that use either catalytic incinerator or afterburners as a VOC destruction device."

DISTRICT RESPONSE

As clarified to EPA during a telephone discussion with the District on July 8, 1997, the first seven template conditions are applicable to metal can coating operations with certain types of control equipment and will not appear on all of the Title V permits for units qualifying to use this template. Therefore the first paragraph referenced by EPA has been modified as follows:

Conditions #1 - #7 will not be applicable to all facilities using this template and therefore will only be incorporated into the Title V permit for any unit to which they apply as follows: condition #1 applies to facilities that use low VOC coatings to achieve compliance with VOC emissions limitations; conditions #2 and #3 apply to facilities that use afterburners as VOC destruction device; conditions #4 and #5 apply to facilities that use catalytic incinerators as VOC destruction device; and conditions #6 and #7 apply to facilities with either catalytic incinerators or afterburners as a destruction devices. Conditions #8 - #21 are applicable to all facilities using this template and will be incorporated into the Title V permit for any operation making use of template #SJV-MC-1-0...

26. EPA COMMENT¹⁰

The paragraph under subheading Conditions for Operation Using Low VOC Coatings in section VI, Conditions must be corrected to read, "1. Operator shall comply... by not using or applying ~~only~~ any coating... as applied ~~including~~ excluding water and exempt compounds...."

DISTRICT RESPONSE

These corrections have been made as suggested.

27. EPA COMMENT¹⁰

The order of the subheadings for conditions #2 - 5 must be switched to correctly reflect the subject matters of the conditions.

¹⁰ This comment was also verbally received from the California Air Resources Board (CARB).

Template SJV-MC-1-0

DISTRICT RESPONSE

The order of the subheadings for conditions #2 - 5 has been switched as follows:

Conditions for Operations with Afterburners

2. The afterburner chamber shall be preheated to at least 1300° degrees F prior to combustion of charged material. [District Rule 4604, 5.2.2]

3. The afterburner shall be equipped with a continuous temperature monitoring and recording instrument; or be equipped with a device that either sounds an alarm or shuts down the process if the temperature of the afterburner is not maintained within operating parameters. [District Rule 4604,5.2.2]

Conditions for Operations with Catalytic Incinerators

4. The operating temperature of the catalytic incinerator shall be at least 600° degrees F. [District Rule 4604, 5.2.2]

5. The catalytic incinerator shall be equipped with a continuous temperature monitoring and recording instrument; or be equipped with a device that either sounds an alarm or shuts down the process in the event that the catalyst bed temperature is not maintained within operating parameters. [District Rule 4604, 5.2.2]

28. **EPA COMMENT**

Condition #2 should be modified as follows: "The afterburner chamber shall be preheated to at least 1300° degrees F prior to combustion of charged material...

DISTRICT RESPONSE

This condition has been modified as suggested .

29. **EPA COMMENT**

It is not clear whether the District intends to allow a source to switch between use of low VOC coating and the use of a 90% efficient VOC control device to assure compliance with District Rule 4604. If this is the case, in accordance with 40 CFR 70.6(a)(9)(I), the District must add a condition to require that the source document in a log the scenario under which it is operating.

DISTRICT RESPONSE

The District does not intend to allow any source using this template to switch between the two operating scenarios describe by EPA and therefore the requirements of 40 CFR 70.6(a)(9)(I) are not applicable. As clarified to EPA during a July 8, 1997 conversation, not all of the first seven conditions of this template will appear on the Title V permits of all units qualifying to use this template. Please also see District Response to EPA Comment #27.

Template SJV-MC-1-0

30. **EPA COMMENT**

In condition #6, the District must clarify that the VOC emission limit of 225 grams/L required for the sheet basecoat and overvarnish operation in condition #1 is an applicable emission limit and that the 90% overall control efficiency of a VOC emission destruction device ensure that this limit will be met.

DISTRICT RESPONSE

As discussed with EPA, subsequent to receiving their comments, the requirement to have 90% overall VOC control efficiency does not and is not intended to guarantee that a source will not exceed emissions that would result if they were to use a low VOC content coating of 225 grams/L or less. This is not a requirement of District Rule 4604 and will not be incorporated into the template.

31. **EPA COMMENT**

Condition #7 erroneously states that total VOC content of coating is a factor in the overall control device efficiency determination. This condition must be revised.

DISTRICT RESPONSE

The District agrees the overall control efficiency is normally dependent upon capture efficiency and the ratio between outlet and inlet VOC concentration of the device and not dependent upon the VOC content of the coating. This condition has been revised to read as follows:

- VOC emissions shall be measured by EPA Method 25, 25a, or 25b, as applicable, and analysis of halogenated exempt compounds shall be analyzed by ARB Method 422 on an annual basis. Capture efficiency shall be determined using methods described in Rule 4604 (as amended December 17, 1992) section 6.2.3. Overall VOC control efficiency shall be determined annually using the source test data and the capture efficiency of the control system. [District Rule 4604, 6.2.2 and 6.2.3, and 2520, 9.4.2]

32. **EPA COMMENT**

When a District Rule is cross-referenced within a permit condition as is the case with condition #8, the latest amendment date of the Rule must be included so it is clear with which version of the rule sources must comply. Also, in order to clarify that the annual determination of VOC emission is base on the periodic monitoring requirements of District Rule 2520, 9.4.2, the origin and authority of condition #8 should be expanded to include this citation.

DISTRICT RESPONSE

Condition #8 has been modified as suggested and combined with condition #7 and renumbered as such. Please refer to District Response to EPA Comment #31 for the content of condition #7.

Template SJV-MC-1-0

33. **EPA COMMENT**

Condition #13 allows a source to determine the VOC content of a coating by either the information supplied on the Material Safety Data Sheet (MSDS) or by testing of coating samples. District Rule 4604 specifically states the VOC content of coating be determined by analysis of samples using EPA Method 24. Therefore the MSDS provision should be removed.

The correct ARB test method referred to in condition #13 is Method 432, not 422. Also the origin and authority for the annual testing requirement in this condition is Rule 2520, 9.4.2 and should be included in the citation.

DISTRICT RESPONSE

Manufactures of metal can coatings typically determine VOC content of their coatings using the methods specified in District Rule 4604. Therefore condition #13 (renumber as condition #15) has been modified as follows to address EPA comments and to be consistent with the requirements of District Rule 4604:

- VOC content of coating(s), as applied, and of solvents used for cleanup and surface preparation shall be determined by EPA Method 24 and analysis of halogenated exempt compounds shall be determined by ARB Method 432 on an annual basis. If the coating/solvent manufacturers provide certification that the previously mentioned methods are used to determine the VOC content, copies of the coating/solvent product data sheets and the certifications may be maintained, used to calculate the VOC content of the coating, as applied, and shall be considered compliance with this condition. [District Rules 2520, 9.4.2 and 4604, 6.2.1]

34. **EPA COMMENT**

Condition #14 grants a permit shield from the particulate matter (PM) emission requirements of District Rule 4201. This shield is too broad and must be modified since compliance is demonstrated in the template for PM emissions resulting from curing oven only.

DISTRICT RESPONSE

This condition has been modified to read as follows:

- Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201(as amended December 17,1992) for curing oven emissions only, and 4604 (as amended December 17, 1992), formerly District Rule 460.4. A permit shield is granted from these requirements. [District Rule 2520, 13.2]

Template SJV-MC-1-0

35. **EPA COMMENT**

Condition #14 grants a permit shield from District Rule 4604. The template does not address any control requirement for sources using a control device other than afterburners or catalytic incinerators, however a source using carbon adsorption could qualify to use this template. The District must add a condition to specifically restrict sources to either the use of coatings with low VOC content or the two types of VOC destruction devices discussed before the permit shield for rule 4604 can be granted.

DISTRICT RESPONSE

The District has added the following question to the Template Qualification Form to prohibit any source using a control device other than an afterburner or catalytic incinerator from qualifying to use this template:

- Does this process use only coatings compliant with District Rule 4604, section 5.1.1 or is it controlled by a VOC destruction device that is either an afterburner or a catalytic incinerator only, with at least 90% control efficiency, pursuant to section 5.2.2? [District Rule 4604 section 5.2] If “yes”, continue to next question; otherwise STOP - you cannot use this template.

With the addition of this question in the TQF, it will not be necessary to include the prohibitory condition requested by EPA.

36. **EPA COMMENT**

In accordance with District Rule 4604, 6.3, the District must add a condition to require a source using a VOC emission control device, subject to applicable conditions #2-8, to submit to the APCO for approval an Operation and Maintenance (O/M) plan.

DISTRICT RESPONSE

The District has been consistent with not including start-up requirements, such as this one for the O/M plan, as conditions in the template. However, the District has removed the permit shield for section 6.3 of District Rule 4604 for submittal of this plan.

37. **EPA COMMENT**

If the District has made a determination that coatings shall be restricted from containing any sulfur compounds, an enforceable, prohibitory condition must be added to the template.

DISTRICT RESPONSE

Please see District Response to EPA Comment #21.

38. **EPA COMMENT**

Template SJV-MC-1-0

The District must add a criterion to the TQF to clarify that only if the process is a metal can surface sheet basecoating (exterior and interior) and overvarnish operation, can an applicant continue in determining their qualification to use the template.

DISTRICT RESPONSE

The following criterion has been added to the TQF:

-Is this unit used for metal can flat sheet basecoat (exterior or interior) and overvarnish operations only? [District Rule 4604 section 5.1] If "yes", continue to next question; otherwise STOP - you cannot use this template.

39. EPA COMMENT

If the District determine that the restriction on coating containing sulfur compounds is not applicable for the purposes of this template, the TQF criterion prohibiting the presence of sulfur compounds in coating may need to be removed.

DISTRICT RESPONSE

The TQF criterion prohibiting the presence of sulfur compounds in coating has been removed, since it has been determined it is not applicable to this template.

APPENDIX D

TEMPLATE QUALIFICATION FORM
FOR
TEMPLATE #SJV-MC-1-0

Template SJV-MC-1-0

Title V General Permit Template Qualification Form

District permit # _____

Please answer the questions in the table below. A metal can coating line (process) which meets the criteria of this table is qualified to use this template as part of a Title V application. To use this template, remove this sheet and attach to application.

| Yes | No | Description of Qualifying Units |
|-----|----|--|
| | | Is the process a beverage can (see Appendix A) surface coating line? [40 CFR § 60.491 (a)(1)] If "no," continue to next question; otherwise STOP - you cannot use this template. |
| | | Is the process a metal coil surface coating operation as defined in 40 CFR § 60.461(a) and District Rule 4604 section 3.0 (see Appendix A)? If "no," continue to next question; otherwise STOP - you cannot use this template. |
| | | Does the facility use more than three gallons per day of coatings? [District Rule 4604, 4.1] If "yes", continue to next question; otherwise STOP - you cannot use this template. |
| | | Is this unit used for metal can flat sheet basecoat (exterior or interior) and overvarnish operations only? [District Rule 4604 section 5.1] If "yes", continue to next question; otherwise STOP - you cannot use this template. |
| | | Does this process use only coatings compliant with District Rule 4604, section 5.1.1 or is it controlled by a VOC destruction device that is either an afterburner or a catalytic incinerator only, with at least 90% control efficiency, pursuant to section 5.2.2? [District Rule 4604 section 5.2] If "yes", continue to next question; otherwise STOP - you cannot use this template. |
| | | If the process is controlled by an afterburner or incinerator, has the facility submitted an Operation and Maintenance Plan to the APCO for approval? [District Rule 4604, 6.3] If "yes", continue to next question; otherwise STOP - you cannot use this template. |
| | | Is the process in full compliance with District Rule 4604? [District Rule 4604, 4.2] If "yes", continue to next question; otherwise STOP - you cannot use this template. |
| | | Are all curing ovens associated with this process induction heated or fired exclusively on PUC-regulated natural gas with a sulfur content of less than or equal to 0.017% by weight (5 grains/100 scf) or propane with a sulfur content of less than or equal to 0.019% by weight (15 grains/100 scf)? If "no", STOP - you cannot use this template; otherwise you qualify to use this template. |

Based on information and belief formed after reasonable inquiry 1) the information on this form is true, accurate, and complete and 2) the facility is in compliance with this template's permit conditions:

Signature of Responsible Official

Date

Name of Responsible Official (Please print)